

REMARKS

Claims 1 and 3 are pending in this application. Claim 1 has been amended.

REJECTIONS UNDER 35 U.S.C. § 103:

Reconsideration is respectfully requested of the rejections of claims 1 and 3 under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,309,978 to Donohoe et al. (“Donohoe”) in view of Aoki.

Applicants respectfully submit that neither Donohoe nor Aoki discloses or suggests a mixer outputting an unbranched mixed voltage of a main voltage, a bias voltage, and an auxiliary voltage to one of a lower electrode and an upper electrode, wherein the bias frequency is several MHz to several hundred KHz and the main frequency is 10MHz to 15MHz, as essentially recited in amended claim 1.

Donohoe describes output signals 34, 35, 36 of frequency generators 31, 32, 33, respectively. However, the output signals 34, 35, 36 are set as 3.95MHz, 4.00MHz, 4.05 MHz to generate a modulated-bias plasma. As such, Donohoe does not disclose the claimed ranges of frequencies. Further, the modulated-bias plasma in Donohoe does not use a separate bias source. For example, Donohoe states that “Modulated-bias plasma 104 formation or generation is facilitated by multi-frequency RF source 114. While no independent bias source is provided in system 100, the term “modulated-bias” plasma is used herein to describe plasma generation by modulating a source, whether a bias or driving source.” As such, Donohoe does not disclose or suggest that the bias frequency is several MHz to several hundred KHz and the main frequency is 10MHz to 15MHz.

Further, Applicants respectfully submit that Aoki does not cure the deficiencies in Donohoe as Aoki is silent regarding bias voltage and any relationship between bias and main frequencies.

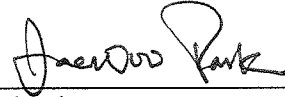
Thus, even assuming, *arguendo*, that Donohoe and Aoki were combined, the combination does not disclose or suggest a mixer outputting an unbranched mixed voltage of a main voltage, a bias voltage, and an auxiliary voltage to one of a lower electrode and an upper electrode, wherein the bias frequency is several MHz to several hundred KHz and the main frequency is 10MHz to 15MHz, as essentially recited in amended claim 1.

As such, Applicants respectfully submit that claim 1 is patentable over Donohoe in view of Aoki.

Further, for at least the reason that claim 3 depends from claim 1, claim 3 is also submitted to be patentably distinct over the cited references.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, the Examiner may telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael F. Morano", is written over a horizontal line.

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